PENDING APPLICATIONS

Law Department - Patent Section
Philip Morris Management Corp.
Privileged and Confidential

1 February 1991

2020109252

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 964 - SN 204974

SMOKING COMPOSITIONS

Y. Houminer and H. Grubbs
Chemical Research/Ferguson/Charles

This invention provides tobacco and non-tobacco smoking compositions which contain a heterocyclic-hydroxy-substituted carboxylate compound as a flavorant additive.

Schardt/D&O

11-7-80	Filed in PTO; assignment recorded.
2-5-81	Prior art statement.
9-14-81	Restriction requirement.
9-25-81	Amendment electing claims 11-31.
11-26-82	Response electing Group III (claims 11-31).
3-1-83	1st action indicating informal allowance.
4-18-84	Memo to inventors/manager recommending abandonment in view of art cited in corresponding foreign cases.
4-20-84	Amendment filed.
6-11-84	Farone indicated that no further action be taken in view of cited art.
12-5-84	Director review--Schardt reviewing this case and related DIVs.
2-11-85	Supplemental amendment and prior art statement filed.
11-5-86	Reviewed with Depaoli--he will check with Examiner.
11-21-86	2nd action allowing all claims.
12-17-86	Response filed.
9-9-87	3rd action suspending prosecution for 2 months due to potential interference.
6-14-88	Letter from Depaoli: examiner dug out file and indicated it was in condition for allowance and will issue with claims 10-31.
1-18-89	Examiner called: file located--notice of allowance to be issued.
7-10-89	Notice of allowance--claims 10-31 allowed.
8-9-89	Issue fee paid.
2-15-90	Depaoli asked to check status - Patent Office cannot locate file.
4-25-90	Letter from Depaoli--PTO quality control audit--to be re-examined.

Corresponding foreign applications/patents in: Argentina, Australia, Brazil, Canada, and Venezuela

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20201109253

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 970 - SN 301486 *** ISSUED ***

LOW DELIVERY CIGARETTE

L. Stewart
Product Development/Gauvin/Myracle

A smoking article in which a tube of combustible, heat fusible material is surrounded by tobacco filler and wrapper. The tube extends from approximately 5 mm from the mouth end of the filter to within approximately 10 mm of the tobacco, and by directing essentially unfiltered, undiluted smoke to the smoker during the initial puffs gives the impression of a stronger flavored cigarette. After the first several puffs, the tube is melted shut and normal dilution occurs.

Schardt/F&N/Ingerman

9-14-81	Filed in PTO; assignment recorded.
12-19-81	Prior art statement.
10-18-82	1st action.
1-24-83	Amendment.
3-10-83	Notice of allowance.
6-13-83	Petition to delay issuance, supplemental art statement, issue fee paid.
9-15-83	PTO notice: withdrawn from issue to permit reopening of prosecution based on newly discovered art.
11-27-84	Director review--continue prosecution.
10-17-86	PTO communication: file lost.
11-14-86	Submission of official record filed.
2-2-87	2nd request from PTO for copy of record.
3-5-87	2nd submission of official record filed.
8-4-88	Letter from C. Smith: Ingerman called Examiner--paper is in process for mailing.
3-8-89	5th status inquiry filed.
8-18-89	2nd action.
11-16-89	Response filed.
1-16-90	3rd action rejecting 1 and 4-6 and objecting to 2-3 - FINAL (response due April 16).
6-15-90	Response filed.
7-17-90	Notice of allowance.
9-18-90	Issue fee paid.
1-15-91	Issued: 4984588

Corresponding foreign applications/patents in: Australia, Canada, and EPO designating Belgium, France, Germany, Netherlands, Switzerland, and UK.

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20201092254

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1083 CONT II - SN 115640

(Delta) PROCESS FOR MAKING A CARBON HEAT SOURCE AND SMOKING ARTICLE INCLUDING THE HEAT SOURCE AND A FLAVOR GENERATOR

J. Hearn, H. Lanzillotti, and G. Burnett
Cigarette Technology/Gauvin/Myracle

The present invention relates to a process for producing a tasteless carbon heat source from a preformed article of a ligno-cellulosic material according to which the article is pyrolyzed in a continuously exchanged inert atmosphere at a temperature within the range of from about 800 degrees to about 1100 degrees C, for from about 0.5 to about 3 hours, then cooled in the inert atmosphere at a rate of from about 500 degrees to about 10 degrees C per hour to a temperature within the range of from about 275 degrees C to about 25 degrees C, and then subjected to at least one additional process step selected from an oxygen absorption step, a salt impregnation followed by heat treatment step, and a water desorption step. The present invention also relates to a smoking article including the carbon heat source, and a flavor generator comprising a substrate material containing at least one thermally releasable flavorant.

Schardt/F&N/Isackson

10-26-87	Filed in PTO--Continuation of abandoned AN 843930; new claims 24-41 added.
1-25-88	Information disclosure statement, preliminary 2nd amendment and request for refund filed.
6-29-88	1st action.
9-22-88	Interview with Examiner and amendment filed.
2-2-89	Action suspending prosecution for 2 months.
5-5-89	2nd status inquiry filed.
5-9-89	Isackson discussed case by phone with Millen who has prepared Action but is waiting for typing.
6-8-89	2nd action.
9-26-89	Amendment filed.
1-16-90	3rd action.
4-25-90	Interview with examiner--case will be allowed; amendment filed.
8-8-90	Status inquiry filed.
8-20-90	4th action allowing all claims.
9-5-90	Amendment filed.
11-20-90	Isackson called to say examiner wants us to change abstract again. He will try to get Examiner's summary doing this.

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2020109255

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1188 CIP II - SN 092124

(Bonded Rods) TOBACCO PROCESSING

G. D. Keritsis, J. G. Nepomuceno, D. E. Albertson, and L. A. Haws
Tobacco Processing & Fabrication/Rowe/Knudson
Flavor Development/Spielberg/Myracle
Tobacco Fundamentals/Craze/Knudson

A method and apparatus are disclosed for applying foamed material to tobacco, and for drying and setting the foamed material, particularly in connection with the making of cigarettes. The foamed material may be added to the tobacco, for example, in the paper guide section of a cigarette maker, at the garniture mouth or through the short tongue or through both, or at the chimney. Drying and setting can occur in the chimney, on the vacuum belt, or in the garniture, after the material has been applied to the tobacco filler. addition of material to tobacco filler, during the cigarette making process in the form of a foam, results in a cigarette in which the material added is more uniformly distributed.

Schardt/F&N/Ingerman

9-2-87	Filed in PTO (CIP of abandoned AN901447--Fig. 16 added); assignment recorded.
11-3-87	EP0232166 to Ingerman for consideration.
12-21-88	1st action.
2-10-89	Response filed.
3-8-89	Supplemental Information Disclosure Statement filed.
5-30-89	2nd action.
6-8-89	Response filed.
8-2-89	2nd supplemental IDS filed.
9-29-89	3rd action allowing all claims but suspending prosecution for 2 months due to a potential interference.
11-29-89	Status inquiry filed.
2-21-90	2nd status inquiry filed.
6-4-90	4th action rejecting all claims.
8-16-90	Response filed.
12-14-90	Notice of allowance (fee due March 14 - Ingerman will pay).

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20201092256

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1195 CONT - SN 129537

CIGARETTES HAVING MINIMIZED LOOSE ENDS AND A PROCESS FOR PREPARING SAME

N. B. Rainer
Process Development/Knudson

Cigarettes having reduced loose end propensity are prepared from shredded smoking material having been uniformly treated with a free-flowing non-deliquescent, hygroscopic powder and aged prior to introduction into a cigarette-making machine. The powder preferably has a size between about 50 and 200 microns, and becomes tacky upon absorption of moisture.

Schardt/F&N/Brook

12-7-87	Filed in PTO with preliminary amendment and information disclosure statement.
5-20-88	1st action.
9-16-88	Response filed.
7-21-89	2nd action allowing all claims.
9-19-89	Response filed amending abstract.
6-4-90	3rd action.
11-20-90	Response filed.

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20201092257

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1200 - SN 416523

NICOTINE ANALOGS

T. Osdene, H. Secor, and J. Seeman
Chemical Research/Ferguson/Charles
TTG

A novel class of nicotine analogs which as therapeutic agents exhibit tranquilizing effects in mammals. An example is 1-(3-dimethylaminopropyl)-2-(3-pyridyl)pyrrolidine. The nicotine analogs can exist in the form of acid addition salts.

Schardt/Depaoli

10-3-89	Filed in PTO; assignment recorded.
6-18-90	1st action.
7-23-90	Amendment filed.
11-5-90	2nd action.
11-27-90	Amendment filed.
12-27-90	Notice of allowance (fee due March 27).

Corresponding foreign applications filed in Japan and the EPO designating all countries except Luxembourg.

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20020109258

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1200DIV - SN 618913

NOVEL NICOTINE ANALOGS

T. Osdene, H. Secor, and J. Seeman
Chemical Research/Ferguson/Charles
TTG

A novel class of nicotine analogs which as therapeutic agents exhibit tranquilizing effects in mammals. An example is 1-(3-dimethylaminopropyl)-2-(3-pyridyl)pyrrolidine. The nicotine analogs can exist in the form of acid addition salts.

Schardt/Depaoli
11-28-90 Filed in PTO with preliminary amendment.

Foreign applications corresponding to the parent case were filed in Japan and the EPO designating all countries except Luxembourg.

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20201109259

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1213 CIP IV - SN 246089 *** ISSUED ***

METHOD AND APPARATUS FOR COATING EXTRUDED TOBACCO-CONTAINING MATERIAL

Gus D. Keritsis, Richard a. Thesing, and Walter A. Nichols

An apparatus and a method for processing extruded tobacco-containing materials as they are continuously extruded by applying a powdery material to the surface of the extrudate, optionally wiping the coated extruded material in order to smear or embed the powdery materials along and into the surface of the extruded material. The powdery material may be a flavorant or other additive materials modifying the characteristics of the extruded material. The invention is useful particularly for use in processing foamed, extruded materials into smoking articles which can be used with conventional cigarette maker equipment to produce large quantities of foamed, extruded tobacco-containing smoking articles having properties substantially equivalent to those of a conventional cigarette.

Schardt/F&N/Isackson

9-19-88	Filed in PTO.
11-11-88	Request from Isackson for information for disclosure statement.
11-30-88	Letter to Isackson forwarded requested information.
3-10-89	1st action.
5-9-89	Isackson discussed case with Examiner who (1) has not located Sydell reference, (2) may have another reference, and (3) will nullify action and issue a new one.
6-8-89	New action allowing claims 8-14 and 20, rejecting 1-4, 15, 17, 19 and objecting to 5-7, 16, and 18.
9-28-89	Amendment and IDS filed.
1-16-90	2nd action - FINAL.
4-25-90	Interview with examiner--case will be allowed; amendment and supplemental IDS filed.
5-16-90	Further supplemental IDS filed.
5-18-90	Notice of allowance.
8-2-90	Issue fee paid; formal drawings submitted.
2-5-91	Issued: 4989620

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2020109260

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1242 - SN 897775 *** ISSUED ***

TOBACCO FLAVORANTS

E. Southwick and J. Paine
Chemical Research/Ferguson/Charles

A smoking composition comprising an admixture of (1) combustible filler selected from natural tobacco, reconstituted tobacco, non-tobacco substitutes, and mixtures, thereof, and (2) an effective amount of a flavorant selected from the group consisting of compounds of formulaes wherein R1, R2, R3, R6, and R7 are independently selected from the group consisting of: hydrogen; C1 to C6 alkyl; C1 to C6 alkoxy-C1 to C6 alkyl; C3 to C12 cycloalkyl; phenyl; benzyl; substituted phenyl and substituted benzyl, wherein the substituted phenyl and substituted benzyl are substituted with one or more substituents, each of said substituents being independently selected from the group consisting of C1 to C6 alkyl, methoxy and hydroxy.

Schardt/F&N/Bailey/Evans

8-18-86	Filed in PTO; assignment recorded.
10-30-87	1st action.
1-27-88	Response filed with information disclosure statement.
5-20-88	2nd action.
7-20-88	Response filed.
5-23-89	Letter from Evans: called Examiner who said he would try to locate file and issue an Action.
7-18-89	3rd action.
11-20-89	Response filed.
3-16-90	Action--final--allowing 1-5, 7-9, 11-15 and rejecting 16-18.
3-22-90	Phone interview with Examiner--he will allow 16-18.
6-5-90	Notice of allowance.
8-3-90	Issue fee paid.
12-4-90	Issued: 4974609

No corresponding foreign patents/applications.

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20201109261

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1245 - SN 895398

SMOKING COMPOSITIONS CONTAINING A 2,5-DIACYLPYRAZINE FLAVORANT ADDITIVE

D. Williams and R. Southwick
Chemical Research/Ferguson/Charles

In one of its embodiments this invention provides smoking compositions which contain a novel unsymmetrical 2,5-diacylpyrazine flavorant additive as illustrated by 1-[5-(1-propanoyl)-2-pyrazinyl]-2-methyl-1-propanone. Under normal cigarette smoking conditions, the 2,5-diacylpyrazine additive volatilizes and enhances the flavor and aroma of the mainstream and sidestream smoke.

Schardt/D&O

8-11-86	Filed in PTO--assignment recorded.
10-30-87	1st action.
11-30-87	Response filed.
6-7-88	2nd action.
7-5-88	Response filed.
10-11-88	3rd action.
10-26-88	Response filed.
2-21-89	Advisory action suspending prosecution for 2 months.
4-19-89	Status inquiry filed.
7-24-89	4th action.
10-18-89	Response filed.
1-19-90	5th action.
2-7-90	Amendment filed.
5-25-90	6th action allowing.
6-5-90	Amendment filed.
8-22-90	Notice of allowance.
11-8-90	Issue fee paid.

Corresponding foreign patents/applications in: EPO designating Germany, UK, Netherlands, and Switzerland.

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20201109262

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1246 - SN 630481

(Filter Technology) FLAVOR-ENHANCING SMOKING FILTER

G. Keritsis
Flavor Development/Spielberg/Myracle

A flavor-enhancing smoking filter having at least two concentric zones, including at least one filtering zone and at least one flavor-enhancing zone. The flavor-enhancing zone(s) have a flavorant, have a surface providing for the substantially laminar flow of smoke and permit the passage of none or a minority of the smoke drawn through the filter.

Schardt/F&N/Storella
12-20-90 Filed in PTO.

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2020109263

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1263 - SN 573991

METHOD AND APPARATUS FOR FORMING CONTAINERS WITH ROUNDED EDGES, AND CONTAINER BLANK FOR SAME (CORINTHIAN)

C. J. Campbell, Linda S. Latif, and H. Graboyes
Cigarette Technology/Gauvin/Myracle
Engineering/Keen/Taylor

To produce a container with a rounded edge, the container blank is scored with several parallel, laterally spaced score lines adjacent the intended location of the rounded edge. When the blank is bent, a portion of the total deflection is absorbed by each score line so that the resulting container edge is a gradual curve rather than a single sharp crease. The ends of each scored region may be left unscored to further smooth the ends of the rounded contained edge. Methods and apparatus for forming the above-described blank are disclosed.

Glenn/F&N/Laughon
8-28-90 Filed in PTO.

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2020109264

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1267 CIP A - SN 122761

(Project ART) PROCESS FOR REMOVAL OF BASIC MATERIALS

H. J. Grubbs, R. Prasad, and Tony Howell
Chemical Research/Ferguson/Charles
Tobacco Materials/Alonso/Knudson
Physical Research/Whidby/Charles

A process is provided for the selective removal of basic materials from plant products, in particular, for removing nicotine from tobacco without materially affecting the content of the other components of the tobacco. Tobacco is traversed with a solvent in the supercritical state or in the liquid state wherein nicotine and the other components dissolve in the solvent. The solvent is then passed through an acid containing trap and the solvent is freed of nicotine. The solvent, depleted of nicotine and enriched in the other components, is then recycled to the tobacco to reextract nicotine.

See also PM 1268 and 1355

Schardt/F&N/Brandt

11-19-87	Filed in PTO; assignment recorded.
6-30-88	Information disclosure statement filed.
7-7-89	1st action rejecting all claims.
9-13-89	Meeting with Sonnenfeld and inventors to review scope of application.
1-4-90	Amendment filed.
4-26-90	2nd action.
6-25-90	Amendment and supplemental IDS filed.
9-28-90	3rd action.
12-14-90	Notice of allowance (fee due March 14).

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2020109265

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1268 - SN 122760

(Project Art) PROCESS AND APPARATUS FOR THE SEMICONTINUOUS EXTRACTION OF NICOTINE FROM TOBACCO

R. Prasad and H. Grubbs
Tobacco Materials/Alonso/Knudson
Chemical Research/Ferguson/Charles

A process is provided for the improved removal of nicotine from tobacco. A nicotine-free solvent in the supercritical state is fed into a first end of an extraction system containing tobacco and a nicotine-rich solvent is discharged from a second end of the extraction system. Periodically a portion of extracted tobacco is discharged from the first end of the extraction system while simultaneously a portion of an unextracted tobacco is charged to the second end of the extraction system.

See also PM 1267 and 1355

Schardt/F&N/Secrest/Sonnenfeld

11-19-87	Filed in PTO; assignment recorded.
6-28-88	Information disclosure statement filed.
1-30-89	1st action.
6-30-89	Amendment filed.
9-13-89	Revised draft amendment received--meeting with Sonnenfeld and inventors to review scope of application.
10-6-89	Russian article to F&N for translation and consideration.
10-20-89	Revised draft amendment approved.
10-31-89	Supplemental amendment filed.
10-27-89	2nd action.
11-3-90	Response filed.
1-19-90	3rd action allowing all claims.
3-1-90	Amendment filed.
6-20-90	Examiner communication suspending prosecution for 3 months pending availability of pertinent reference.
6-22-90	Supplemental IDS filed.
9-20-90	Status inquiry filed.
10-25-90	Meeting with Krasnow/inventors.
12-20-90	4th action (response due March 20--Krasnow drafting response).

Corresonding foreign applications filed in Argentina, Australia, Brazil, Canada, Finland, Japan, South Africa, and EPO designating Austria, Belgium, Switzerland, Germany, Spain, France, UK, Greece, Italy, Netherlands, and Sweden.

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2020109266

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1269 - SN 100694

SMOKING COMPOSITIONS CONTAINING A HETEROAROMATIC FLAVORANT-RELEASE ADDITIVE

Yoram Houminer, Henry Secor and Jeff Seeman
Chemical Research/Ferguson/Charles

This invention provides smoking compositions which contain a novel heteroaromatic flavorant-release additive. Under typical cigarette smoking conditions, 2-isopropylpyrazine and acetophenone are released as pyrolysis products, and enhance the flavor and aroma of the mainstream and sidestream smoke.

Schardt/D&O

9-24-87	Filed in PTO.
12-11-87	Assignment recorded.
7-14-88	Meeting with Depaoli, Sanders, and Seeman to discuss strategy, including foreign filing.
4-10-89	Letter to Depaoli: do status inquiry if needed.
4-13-89	Status inquiry filed.
10-27-89	1st action.
11-29-89	Amendment filed.
3-1-90	2nd action.
3-27-90	Amendment filed.
7-5-90	3rd action.
7-16-90	Response filed.
9-28-90	4th action allowing.
10-11-90	Response filed.
10-17-90	Seeman's comments on action and response phoned to Depaoli.
10-18-90	EPO search report forwarded to Depaoli.
12-21-90	5th action.
1-14-91	Phone interview with Examiner; he will allow claims 15-20.

Corresponding foreign patents/applications in: Australia, Brazil, Canada, Japan, and EPO designating all countries

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2020109267

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1270 (CIP of PM 1097) - SN 138584

(Filter Technology) FLAVORED CIGARETTE FILTER, AND METHOD AND APPARATUS FOR MAKING SAME

Rich Thesing and Walt Nichols
Cigarette Technology/Gauvin/Myracle

A cigarette filter has a substantially cylindrical inner member of filter material surrounded by an outer member of filter material and a plugwrap. The density of the inner and outer members are preferably different, and a flavorant is added to at least one of the members. Methods and apparatus for making the filter are also disclosed.

Schardt/F&N/Jackson

12-28-87	Filed in PTO with information disclosure statement; assignment recorded.
5-30-89	Jackson instructed to do status inquiry.
9-14-89	Letter from Jackson: to soon to do status inquiry.
10-27-89	1st action.
1-17-90	Amendment filed.
5-24-90	2nd action--final.
6-18-90	Amendment filed.
12-18-90	Notice of allowance (fee due March 18 - Jackson will pay).

No corresponding foreign applications filed.

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2020109268

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1279 - SN 246768

(Bonded Ends) DROPLET JET APPLICATION OF ADHESIVE TO CIGARETTE ENDS

R. Gaudlitz, J. Washington, and H. McCafferty
Development Engineering/Burns/Knudson

A method and apparatus are provided for applying an adhesive solution to the coal end of a cigarette by means of a precisely controlled liquid jet spray to bond shreds of tobacco in the cigarette end and to thereby reduce the amount of tobacco which falls out of the cigarette when shaken. The adhesive solution is sprayed by using a controlled continuous jet of the kind used in ink jet technology for the spraying of alpha-numeric character patterns. Electronic controls are employed to synchronize the formation of a series of droplets which are charged and deflected in prescribed paths to contact the coal end of the cigarette in a predetermined pattern. Circuits are provided to adjust the timing and phase of the charging mechanism to compensate for variations in the speed at which the cigarette is conveyed to a target area and for variations in the point of droplet formation.

See also CIP PM 1392

Schardt/F&N/Kennard

9-20-88	Filed in PTO; assignment recorded.
1-12-89	Supplemental IDS filed.
6-9-89	1st action.
11-30-89	Response and formal drawings filed.
3-9-90	2nd action.
8-22-90	Response filed.
10-1-90	Notice of allowance.
12-13-90	Issue fee paid.

No corresponding foreign applications filed.

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2020109269

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1283 - SN 585813

(Filter Technology - Project Sauna) FILTER CIGARETTE

R. W. Newsome, A. S. Gergely, R. A. Thesing, W. T. Callaham, P. N. Gauvin, W. E. Claflin, and W. A. Nichols
Cigarette Technology/Gauvin/Myracle

A filter cigarette comprising a tobacco rod and filter portion comprising a fluted tubular extrusion. The flutes are blocked intermediate the rod end and mouth end of the extrusion. The tobacco rod is circumferentially wrapped with a porous wrapper comprising a longitudinal band of perforations. The fluted tubular extrusion is attached with tipping paper to the tobacco rod. A mouthband and a rodband of perforations circumscribe the tipping paper. A rod of charcoal-impregnated filter material may abut the tubular extrusion.

Glenn/F&N/Solomon
9-20-90 Filed in PTO.

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2020109270

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1287 - SN 460361

(Manufacturing) METHOD AND APPARATUS FOR DETIPPING LOOSE CIGARETTES

Michael A. Grove and Richard Thatcher
Engineering/Keen/Taylor

The method and apparatus of this invention relates to detipping cigarettes at high speed without degradation of the tobacco in the tobacco rod. Cigarettes are fed onto a conveyor belt so that they are traveling in a direction perpendicular to their longitudinal axis. a rolling belt disposed above the conveyor belt straightens bent cigarettes and rolls uneven cigarettes. The cigarettes are then fed onto a fluted rotating drum and aligned on the drum by means of an optical sensor and an air jet so that the filter tip portion of each cigarette is adjacent either side of the drum. Rotating knives are properly oriented so they engage the cigarettes only at the point where the filter tip is connected to the tobacco rod and cut off the filters of the cigarettes.

Schardt/F&N/Lee

1-3-90	Filed in PTO with IDS; assignment recorded.
11-8-90	1st action rejecting all claims.
1-24-91	Response and declarations of Grove and Lee filed.

Corresponding foreign applications filed in Japan, Korea, and the EPO designating Germany, Italy, and the UK.

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2020109271

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1289 - SN 343732

(Delta/Sigma) METHOD AND APPARATUS FOR MAKING MULTIPLE-COMPONENT SMOKING ARTICLES

Martin T. Garthaffner, B. J. Keen, A. J. Gillespie, J. C. Wheless, and G. N. Dingus
Engineering/Keen/Taylor

Cigarette-like smoking articles made up of several different axially aligned components (especially such articles having at least one relatively brittle component such as a hollow ceramic tube) are formed by axially aligning the components, attaching the edge of a wrapper to the side surface of the axially aligned components, and then rolling the axially aligned components about their axis of alignment to cause the wrapper to wrap around the components and thereby secure them together. To ensure that the brittle component does not break, either the components or the wrapper or both are resiliently supported during attachment of the wrapper edge to the components, and the components are also rolled between elements, at least one of which is resilient.

Schardt/F&N/Jackson

4-27-89	Filed in PTO; assignment recorded.
6-22-89	IDS filed.
7-7-89	1st action.
9-12-89	Response and formal drawings filed.
02-08-90	Request for foreign filing instruction to be sent to R&G
1-5-90	2nd action.
3-23-90	Amendment filed.
7-5-90	3rd action--final.
8-16-90	Amendment filed.
10-3-90	Notice of allowance
12-3-90	Issue fee paid.

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2020109272

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1295 CONT - SN 483976

DEVICE FOR CONTROLLING RELATIVE HUMIDITY WITHIN A SUBSTANTIALLY SEALED CONTAINER

D. B. Spruill, J. L. Banyasz, and T. V. Van Auken
Cigarette Technology/Gauvin/Myracle
Physical Research/Whidby/Charles

An insert for inclusion in a substantially sealed container to control the relative humidity within the container is provided. The insert is a packet at least part of the surface of which is a membrane capable of passing water vapor and which contains a buffering substance which is a saturated salt solution selected according to the desired relative humidity, and modified by a non-electrolyte, if necessary, to adjust the relative humidity.

Schardt/F&N/Hubbard

2-20-90	Filed in PTO.
7-5-90	Prior art relating to humidor packs to Eric Hubbard (F&N)
7-20-90	Supplemental IDS filed.
7-31-90	1st action - final.
12-21-90	Response filed.
1-10-91	Notice of allowance (issue fee due April 10).

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20201092273

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1295 CIP - SN 502505

DEVICE FOR CONTROLLING RELATIVE HUMIDITY WITHIN A SUBSTANTIALLY SEALED CONTAINER

D. B. Spruill, J. L. Banyasz, and T. V. Van Auken
Cigarette Technology/Gauvin/Myracle
Physical Research/Whidby/Charles

An insert for inclusion in a substantially sealed container to control the relative humidity within the container is provided. The insert is a packet at least part of the surface of which is a membrane capable of passing water vapor and which contains a buffering substance which is a saturated salt solution selected according to the desired relative humidity, and modified by a non-electrolyte, if necessary, to adjust the relative humidity.

Schardt/F&N/Hubbard

3-30-90	Assignment recorded.
7-20-90	Supplemental IDS filed.
9-26-90	1st action.
1-3-91	Response filed.
1-17-91	Supplemental amendment and supplemental IDS filed.

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20020109274

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1296 - SN 373887

PRINTER DIE OPTICAL INSPECTION DEVICE

Roy C. Stroud and Walt A. Baker
Engineering/Keen/Taylor

An apparatus for optically inspecting printer die motifs, with the inspection including measuring the length, width, and depth of motifs, and measuring the circumferential separation of two motifs when more than one motif is disposed on the same printer die, the apparatus includes microscope optics supported by a stand, a table for supporting a precision divider head upon which the printer die carrying the motif is mounted, with the table being movable in an "X" and "Y" direction in a plane perpendicular to the axis of the optical path issuing from the optics, the precision divider head for rotating the printer die motif through the optical path of the optics, a first digital micrometer to measure length of a motif, a second digital micrometer to measure the width of a motif, a dial indicator to measure the depth of a motif, and the rotational indicator to measure the circumferential separation of two motifs on the same printer die.

Schardt/F&N/Schneider

6-29-89	Filed in PTO without signatures.
9-13-89	Formal papers executed and sent to Kennard for filing.
10-23-89	Assignment recorded.
7-11-90	1st action rejecting all claims.
10-4-90	Amendment filed.
10-23-90	Notice of allowance.
1-15-91	Issue fee paid.

No corresponding foreign applications filed.

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20201092275

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1297 - SN 231147

POLYOLEFIN FILTER TOW AND METHOD OF MAKING IT

M. Hill and W. A. Nichols
FML/TTG/O'Brien

A polyolefin material having mproved fibrillation properties, allowing one to achieve higher yield in cigarette filters made from the fibrillated material is provided.

Schardt/F&N/Ingerman/Isackson

8-10-88	Filed in PTO via Express Mail without formal papers along with information disclosure statement.
10-6-88	Formal papers filed in PTO.
10-7-88	Assignment recorded.
11-23-88	Supplemental information disclosure statement filed.
10-27-89	1st action rejecting all claims (response due Jan. 27).
11-6-89	Draft response received--to Nichols for review.
4-19-90	Walt discussed with JES and Ingerman.
8-31-90	Examiner's action.
9-13-90	Ingerman/JES discussed by phone--Ingerman to have conference with Examiner.
9-18-90	Response filed.
10-24-90	Examiner interview summary indicating allowability of this case.
12-18-90	Notice of allowance (fee due March 18 - Ingerman will pay).

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2020109276

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1298 - SN 491500

(Manufacturing) HORIZONTAL BELT CONVEYOR AIRLOCK

Michael J. Abel
Engineering/Keen/Taylor

An airlock for the batch or continuous feeding of a material while obstructing the free flow of a gas. The airlock comprises a continuous belt having a substantially horizontal upper surface and a plurality of nonporous flights projecting out from the belt. Each flight has a free edge located outwardly from the belt. A planar sealing surface is located above and parallel to the belt, and seals against the free edges of the flights. Particulates are transported on the upper surface of belt below and away from any potential grinding action between the moving edges of the flights and the stationary sealing surface. The flights, located between the sealing surface and the belt, inhibit the flow of air through the airlock.

Schardt/F&N/Hintz
3-12-90 Filed in PTO; assignment recorded.
10-19-90 1st action rejecting all claims (response due January 19).
1-25-91 Action to inventor for review.

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20201092772

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1301 - SN 231144 *** ABANDONED FOR CONT ***

IMPROVED PINNED ROLLERS AND PROCESSES FOR MANUFACTURING FIBRILLATED FILMS

M. Hill
FML/TTG/O'Brien

A roller for use in fibrillating oriented films of polyolefin materials having a plurality of pins projecting from the surface of the roller.

Schardt/F&N/Isackson

8-10-88	Filed in PTO via Express Mail without formal papers along with information disclosure statement.
10-7-88	Formal papers filed in PTO.
10-11-88	Assignment recorded.
2-1-89	Proposed formal drawings filed.
6-21-89	1st action.
10-20-89	Amendment filed.
2-5-90	2nd action rejecting all claims.
4-17-90	Amendment and supplemental IDS filed.
6-27-90	3rd action - final.
10-23-90	Response filed.
11-20-90	Abandoned for continuation.

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20201109278

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1301 CONT - SN 617395

IMPROVED PINNED ROLLERS AND PROCESSES FOR MANUFACTURING FIBRILLATED FILMS

M. Hill
FML/TTG/O'Brien

A roller for use in fibrillating oriented films of polyolefin materials having a plurality of pins projecting from the surface of the roller.

Schardt/F&N/Isackson
11-20-90 Filed in PTO.

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20201092279

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1305 - SN 356756 *** ISSUED ***

(Cast Sheet) APPARATUS AND METHOD FOR MANUFACTURING TOBACCO SHEET MATERIAL

B. C. Kiernan, B. A. Semp, and J. M. Whitman
Applied Technology/Semp/Keen/Taylor

An apparatus and method for manufacturing tobacco sheet material comprising the steps of acoustic mixing with ultrasonic vibration a slurry containing tobacco components and forming sheets of tobacco material by casting the slurry after acoustic mixing. Additionally, the slurry is mixed with subsonic vibration and low shear mixing before the slurry is acoustic mixed. The slurry may include sized tobacco stems, sized tobacco dust and extract solution.

Schardt/F&N/A. Smith

5-24-89	Filed in PTO; assignment recorded.
9-7-89	IDS filed.
12-8-89	1st action.
1-8-90	Letter from A. Smith outling action.
3-1-90	Response filed.
5-24-90	Notice of allowance
8-17-90	Issue fee paid.
11-27-90	Issued: 4972854.

Corresponding foreign applications filed in Japan, South Korea, Brazil and the EPO designating all countries except Luxembourg.

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2020109280

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1307 - SN 231142

CRIMPED TEXTILE FIBERS AND STUFFER BOX APPARATUS AND METHODS FOR CRIMPING TEXTILE FIBERS

M. Hill and W. A. Nichols
FML/TTG/O'Brien

An improved stuffer box used for crimping textile fibers, particularly fibrillated polyolefin films. The width of the stuffer box is related to the linear density of the fiber bundles to be crimped whereby there is one millemeter of width for each fiber bundle size in the range of from abouot 200 to about 750 denier. Pressure controlled hinged lid or fixed lid exit orifices may be employed. Also employed may be a distributing device for applying additive material to the textile fibers prior to crimping to enhance the crimping operation or to enhance the end use of the crimped fiber or both. Fibrillated polyolefin materials that are crimped in accordance with the invention are adapted for use in filter materials in smoking articles.

Schardt/F&N/Ingerman

8-10-88	Filed in PTO via Express Mail without formal papers along with information disclosure statement.
10-7-88	Formal papers filed in PTO.
2-1-89	Preliminary amendment and proposed formal drawings filed.
11-15-89	Supplemental IDS filed.
12-15-89	Examiner called re restriction.
12-18-89	Group I (apparatus stuffer box - claims 1-17) elected.
3-23-90	Supplemental IDS filed.
7-3-90	1st action rejecting claims 1-4 and 6-19 and objecting to 5.
10-29-90	Response filed.
12-10-90	Notice of allowance (fee due March 10 - Isackson will pay).

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2020109281

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1307 DIV - SN _____

CRIMPED TEXTILE FIBERS AND STUFFER BOX APPARATUS AND METHODS FOR CRIMPING TEXTILE FIBERS

M. Hill and W. A. Nichols
FML/TTG/O'Brien

An improved stuffer box used for crimping textile fibers, particularly fibrillated polyolefin films. The width of the stuffer box is related to the linear density of the fiber bundles to be crimped whereby there is one millemeter of width for each fiber bundle size in the range of from abouot 200 to about 750 denier. Pressure controlled hinged lid or fixed lid exit orifices may be employed. Also employed may be a distributing device for applying additive material to the textile fibers prior to crimping to enhance the crimping operation or to enhance the end use of the crimped fiber or both. Fibrillated polyolefin materials that are crimped in accordance with the invention are adapted for use in filter materials in smoking articles.

Schardt/F&N/Ingerman

Divisional filed directed to claims 18-20 drawn to a crimped textile fiber.

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20020109282

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1310 - SN 374007

CIGARETTE RODS WITH LIQUID FLAVOR CENTERS

L. A. Haws and J. G. Nepomuceno
Tobacco Fundamentals/Craze/Knudson

Methods and apparatus for applying liquid strands containing additives to cigarette rods. Liquid is extruded to form one or more strands that are applied to loose tobacco filler in the chimney section of a conventional cigarette maker. The liquid has a viscosity that prevents it from soaking through the tobacco and contacting the cigarette maker or the cigarette wrapper. Additives to the liquid strands include flavorants, burn inhibitors, and burn accelerators.

Schardt/F&N/deBlasi

6-29-89	Filed in PTO; assignment recorded.
12-22-89	1st action rejecting all claims.
5-17-90	Amendment and supplemental IDS filed.
8-9-90	Notice of allowance.
10-31-90	Issue fee paid.

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2020109283

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1315 - SN 222961

(Delta - not used) SMOKING ARTICLE INCORPORATING A CERAMIC TUBE (DELTA)

C. Hayward, H. Lanzillotti, D. E. Merrill, E. B. Sanders, D. B. Losee, and J. Hearn

A smoking article in which a flavored aerosol is generated by heat transfer to a flavor bed from the combustion of a carbon heat source is provided wherein the carbon heat source and the flavor bed are contained within a non-combustible substantially cylindrical hollow ceramic sleeve. The article generates substantially no smoke, producing essentially only carbon dioxide, and has substantially no sidestream. The transfer of heat from the heat source is accomplished by convective and radiative heat transfer.

Schardt/F&N/Ingerman

7-22-88	Filed in PTO via Express Mail without formal papers.
9-27-88	Executed papers forwarded to Ousterhout for filing.
5-23-89	IDS filed.
6-8-89	Supplemental IDS filed.
7-7-89	1st action.
10-3-89	Assignment recorded.
10-4-89	Response filed.
1-16-90	2nd action - FINAL.
5-15-90	Amendment filed.
6-18-90	Examiner interview: application in condition for allowance.
7-3-90	Notice of allowance
7-11-90	Formal drawings submitted.
9-10-90	Issue fee paid.

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2020109284

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1319 - SN 223232

(Delta) CARBON HEAT SOURCE

William A. Nystrom, Leo C. Lanzel, Harry V. Lanzillotti, Charles R. Hayward, A. Clifton Lilly, and John R. Hearn

A carbonaceous heat source for a smoking article is provided. The heat source is designed to maximize heat transfer to a flavor bed in the smoking article. The heat source undergoes complete combustion without leaving residual ash, has a low degree of thermal conductivity and ignites within two seconds when it is subjected to a high intensity light and a 35 cc puff is taken on the smoking article.

Schardt/F&N/Ingerman

7-22-88	Filed in PTO via Express Mail without formal papers.
8-19-88	Notice of missing parts.
12-14-88	Formal papers and transmittal filed.
1-5-89	Formal drawings filed.
3-6-89	Meeting with C. Smith, JES, Loring, Lee, Hintz, Lilly, Whidby, Lanzillotti, Watkins, and Losee to review this case with PM 1322 and 1326.
4-24-89	1st action.
5-1-89	Executed assignment received.
7-24-89	Response and supplemental IDS filed.
10-27-89	2nd action allowing claims 1-67 and 73, rejecting 68 and objecting to 69-72.
2-21-90	Response filed.
3-30-90	Supplemental amendment and IDS filed.
6-20-90	3rd action.
9-13-90	Lilly to have phone conference with Examiner.
9-19-90	Response filed.

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20201109285

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1321 - SN 222831 *** ISSUED ***

(Delta/Sigma) THERMALLY RELEASABLE FLAVOR SOURCE FOR SMOKING ARTICLES

W. A. Nichols, H. V. Lanzillotti, R. A. Thesing, A. S. Gergely, C. H. Morgan, B. E. Waymack, D. B. Losee, J. R. Hearn, J. L. Miller

A flavor source to be used as a thermally releasable flavorant for smoking articles that do not burn tobacco. The material includes tobacco particles, an aerosol precursor that forms an aerosol upon exposure to heat, and a heat transfer material that absorbs and radiates heat to minimize the likelihood that the flavor material will ignite. The material is mised in an extruder, extruded out a die, and cut into pellets having a substantially uniform shape. The pellets are loaded into a chamber for inclusion in a smoking article as a flavor generator.

Schardt/F&N/Isackson

7-22-88	Filed in PTO via Express Mail without formal papers.
10-25-88	Executed papers forwarded to Isackson.
11-3-88	Petition to extend time to amend inventorship filed.
11-7-88	Assignment recorded.
11-14-88	Letter from Isackson asking for information for disclosure statement.
12-23-88	Preliminary amendment filed.
2-1-89	Proposed formal drawings filed.
5-31-89	PTO notice requiring consent of assignee to amend inventorship.
7-18-89	Consent of assignee to amend inventorship filed.
3-9-90	1st action rejecting all claims.
6-1-90	Response filed.
8-17-90	Notice of allowance.
10-12-90	Issue fee paid.
10-26-90	Supplemental IDS filed.
1-1-91	Issued: 4981522

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2020109286

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1322 - SN 223153 *** ISSUED ***

(Delta/Sigma) ARTICLE INCORPORATING PAPER/ALUMINUM TUBES, CARBON HEAT SOURCE, AND TOBACCO PELLETS (commercial article)

M. A. Serrano, K. Houghton, H. Lanzillotti, E. B. Sanders, A. C. Lilly, C. Hayward, J. Hearn, and D. B. Losee

Smoking article which produces substantially no smoke in which the sensations associated with the smoking of tobacco are achieved without the burning of tobacco.

Schardt/F&N/Ingerman

7-22-88	Filed in PTO via Express Mail without formal papers.
8-19-88	Notice of missing parts.
10-7-88	Formal papers filed in PTO.
11-16-88	Supplemental Declaration filed.
2-1-89	Ingerman instructed to file preliminary amendment.
3-6-89	Meeting with C. Smith, JES, Loring, Lee, Hintz, Lilly, Whidby, Lanzillotti, Watkins, and Losee to review this case with PM 1326 and 1319.
3-14-89	Information Disclosure statement filed.
4-27-89	Decision on petition: granted adding Serrano.
6-8-89	Supplemental IDS filed.
7-7-89	1st action rejecting claims 1 and 25-33 and objecting to 2-24.
8-11-89	Consent of assignee to amend inventorship filed.
9-1-89	Response filed.
1-5-90	2nd action - FINAL.
3-20-90	Response filed.
4-20-90	Phone interview with Examiner--will be allowed.
5-23-90	Notice of allowance--claims 1-37 allowed.
6-15-90	Amendment filed; issue fee paid.
2-12-91	Issued: 4991606

Corresponding foreign patents/applications in: Australia, Canada, China, Japan, Philippines, South Africa, Hong Kong, South Korea, Singapore, Taiwan, and the EPO designating Austria, Belgium, Germany, France, Greece, Italy, Netherlands, Spain, Sweden, Switzerland, and UK.

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2020109287

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1322 CIP II - SN 571730

(Delta/Sigma) SMOKING ARTICLE

M. A. Serrano, K. S. Houghton, H. V. Lanzillotti, E. B. Sanders, A. C. Lilly, C. R. Hayward, J. R. Hearn, and D. B. Losee

A smoking article in which a flavored aerosol is generated by heat transfer to a flavor bed from the combustion of a carbon heat source is provided. The article generates substantially no sidestream smoke. The transfer of heat from the heat source to the flavor bed is accomplished by convective and radiative heat transfer.

Schardt/F&N/Ingerman
8-24-90 Filed in PTO with IDS; assignment recorded.

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PM 1325 - SN 266161

SMOKING COMPOSITIONS CONTAINING A HEXAHYDROBENZOFURANONE FLAVORANT

K. F. Podraza
Chemical Research/Ferguson/Charles

This invention provides smoking compositions which contain a 6-substituted hexahydrobenzofuranone flavorant additive. Under cigarette smoking conditions the flavorant additive enhances the aroma and flavor of the cigarette smoke.

Schardt/Depaoli
11-2-88 Filed in PTO.
10-27-89 1st action allowing claims 1-9 and 12-15 and rejecting 10-11.
11-29-89 Response filed.

No corresponding applications/patents.

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2020109288

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1326 - SN 281496

(Sigma) METAL CARBIDE HEAT SOURCE

Donald M. Schleich and Yunchang Zhang
Polytechnic Institute of NY

A metal carbide heat source, particularly useful in smoking articles, is provided. The metal carbide particles making up the heata source have ignition temperatures that are substantially lower than conventional carbon particles normally used in carbonaceous heat sources, while at the same time provide sufficient heat to release a flavored aerosol from a flavor bed for inhalation by the smoker. Upon combustion the heat source produces substantially no carbon monoxide.

Schardt/F&N/Loring

12-8-88	Filed in PTO; assignment recorded.
3-6-89	Meeting with C. Smith, JES, Loring, Lee, Hintz, Lilly, Whidby, Lanzillotti, Watkins, and Losee to review this case with PM 1322 and 1319.
3-23-89	Letter from Loring: CIP to be filed incorporating PM iron carbide heat source (PM 1336).
7-7-89	1st action.
7-13-89	Letter from Loring recommending abandoning in favor of CIP (PM 1336).
10-10-89	Amendment filed.
1-19-90	2nd action rejecting 1-6, 11-19 and objecting to 7-10.
7-12-90	Forwarded to F&N reference (assignee Daiken Ind.) related to PM 1336
7-18-90	Forwarded documents to Boyer Amendment and Declaration executed by Deevi
7-19-90	Response filed.
11-8-90	Action allowing all claims.
1-4-91	Response filed.

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20020109289

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1327 - SN 509167

HOT ROTARY STAMPER APPARATUS AND METHODS FOR METAL LEAF STAMPING

Angel Amendola
Alford Packaging

A continuous sheet of metal leaf advanced at a constant rate is moved at variable velocity through a rotary die stamper such that between stamps the metal leaf moves at a velocity which is slower than the velocity of a substrate web; but just prior to stamping the metal leaf is accelerated by contact between the metal leaf and a raised die rotating at the velocity of the substrate web so that when the stamp occurs the metal leaf is traveling at a velocity substantially equal to the velocity of the substrate web. Varying the velocity of the metal leaf has the effect of minimizing the distance the metal leaf travels between stamps which conserves consumption of the metal leaf. Separate means for accelerating the leaf prior to stamping and decelerating the leaf after stamping also may be provided.

Schardt/F&N/Isackson/Hubbard
4-16-90 Filed in PTO; assignment recorded.

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20201109290

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1328 DIV - SN 508227

CONTAINER WRAPPER WITH INTEGRAL TEAR TAPE, AND METHODS AND APPARATUS FOR MAKING SAME

Angel Amendola (Alford Packaging)

An outer wrapper for a container which includes an integral tear tape. The tear tape is formed by cutting two sets of score lines extending partially through the thickness of the wrapper material. The tear tape can be patterned to conform to the parting line along which the container opens, including oblique segments, thus allowing the container to be opened without interference from the parts of the wrapper which remain in contact with the container subsequent to removal of the tear tape.

Schardt/F&N/deBlasi

4-12-90	Filed in PTO with preliminary amendment.
8-2-90	IDS filed.
10-5-90	1st action rejecting all claims (response due January 5).
12-12-90	Executed assignment, declaration/power and statement of facts to add Pham as inventor sent to F&N.

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20201092291

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1331 - SN 381762

(Delta/Sigma) THERMAL INDICATORS FOR SMOKING ARTICLES

F. M. Sprinkel, J. M. Campbell, and D. B. Losee
Physical Research/Whidby/Charles

Thermal indicators for non-combustion smoking articles which chemically react when heated to provide visual indication of temperature changes. The indicators comprise organic acids, sugars, or amines combined with sugars. The indicators are printed in a variety of patterns along the length of the smoking articles to show temperature changes and to indicate whether the smoking article is finished and should be discarded. Methods for applying the indicators to smoking articles by using print wheels or spray jets are also disclosed.

Schardt/F&N/deBlasi

7-18-89	Filed in PTO; assignment recorded.
3-9-90	1st action allowing 9-10 and 27-28, rejecting 1-8, 11, 13-14, 25-26, and objecting to 12 and 15-24.
3-12-90	IDS filed.
6-15-90	Amendment filed and formal drawings submitted.
9-25-90	Notice of allowance.
10-31-90	Issue fee paid.

Corresponding foreign applications filed in Japan and East Germany.

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20201109292

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1332 - SN 381764

(Delta/Sigma) THERMAL INDICATORS FOR SMOKING ARTICLES

F. M. Sprinkel, C. H. Morgan, D. B. Losee
Physical Research/Whidby/Charles

Thermal indicators for non-combustion smoking articles which physically change when heated to provide visual indications of temperature changes is disclosed. The indicators comprise waxes or other compounds which melt away to reveal colored substrates, or comprise microencapsulated chemicals which are released when heated to cause inking or dyeing. The thermal indicators are printed in a variety of patterns along the length of the smoking articles to show temperature changes and to indicate whether the smoking article is finished and should be discarded.

Schardt/F&N/deBlasi

7-18-89	Filed in PTO; assignment recorded.
3-9-90	1st action allowing 9-10 and rejecting 1-8 and 11-28.
3-12-90	IDS filed.
6-15-90	Amendment filed and formal drawings submitted.
8-17-90	Notice of allowance.
10-31-90	Issue fee paid.

Corresponding foreign applications filed in East Germany and Japan.

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20201109293

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1333 - SN 381116

ON-LINE EMBOSSING APPARATUS FOR A LABELING MACHINE

M. Joshi, J. L. Ingalls, R. G. Brinker, and J. Hawkins

An apparatus for embossing and cutting printed labels from a sheet of printed labels is disclosed. The apparatus embosses each printed label on the sheet at a particular location within specified tolerances. The apparatus thereafter cuts each embossed printed label from the sheet of labels.

Schardt/F&N/Lee

7-17-89	Filed in PTO with IDS; assignment recorded.
2-26-90	1st action allowing 4-27 and rejecting 1-3.
6-19-90	Response filed.
9-20-90	Notice of allowance (fee due December 20--Lee will pay).

Corresponding foreign applications filed in East Germany, Japan, and South Korea.

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20201109294

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1334 (D453) - SN 308739

METHODS AND APPARATUS FOR OPTICALLY DETERMINING THE ACCEPTABILITY OF PRODUCTS

Kenneth A. Cox and Robert J. Maher

The appearance of a product is determined to be acceptable or unacceptable by computing a discriminant function or image from a plurality of two-dimensional images of products of the kind to be inspected. A two-dimensional image of the product is then formed and processed using the discriminant image to produce an output value which can be compared to a predetermined value used in computing the discriminant image. If the output value deviates from the predetermined value by more than a predetermined amount, the product has been found to have an unacceptable appearance.

Related to PM 1514

Glenn/F&N/Jackson

2-9-89	Filed in PTO without formal drawings.
2-28-89	Notice of missing parts received.
3-14-89	Executed Declaration and Assignment forwarded to Jackson for filing.
5-3-89	IDS filed.
7-24-89	Additional disclosure materials forwarded to Jackson for consideration.
9-13-89	Meeting with Jackson and inventors to review new material.
11-9-89	Formal drawings filed.
8-21-90	Notice of allowance.
11-19-90	Issue fee paid.

Corresponding foreign applications filed in Japan and the EPO designating all countries.

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20201092295

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1334 CONT - SN 634110

METHODS AND APPARATUS FOR OPTICALLY DETERMINING THE ACCEPTABILITY OF PRODUCTS

Kenneth A. Cox and Robert J. Maher

The appearance of a product is determined to be acceptable or unacceptable by computing a discriminant function or image from a plurality of two-dimensional images of products of the kind to be inspected. A two-dimensional image of the product is then formed and processed using the discriminant image to produce an output value which can be compared to a predetermined value used in computing the discriminant image. If the output value deviates from the predetermined value by more than a predetermined amount, the product has been found to have an unacceptable appearance.

Glenn/F&N/Jackson
12-17-90 Filed in PTO.
1-30-91 IDS filed.

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20020109296

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1335 - SN 444569

(Beta) ELECTRICALLY POWERED LINEAR HEATING ELEMENT FOR A SMOKING DEVICE

S. C. Deevi and F. M. Sprinkel
Physical Research/Whidby/Charles

A heating element for use within a smoking device which non-combustibly heats a flavorant-containing material within the smoking device to produce an aromatic aerosol or vapor, which the smoker may inhale. More particularly, an electrically powered heating element having a plurality of discrete resistive heating segments, only one of which is active at any given time. In a preferred embodiment the heating element is contained within the smoking device so that the individual heating segments of the element are adjacent to a flavorant-containing material. As each segment of the heating element is provided with power, the flavorant-containing material adjacent to that segment is non-combustibly heated. This heating causes the flavorant-containing material to produce a flavored, aromatic aerosol or vapor, which the use of the device may inhale.

See also 1337

Schardt/F&N/Marley

12-1-89	Filed in PTO.
5-14-90	IDS filed.
10-31-90	1st action rejecting all claims (response due January 31).
11-29-90	Draft response received.

Corresponding foreign applications filed in Australia, Canada, South Korea, Japan, Norway, Turkey, and the EPO designating all countries except Luxembourg.

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2020109297

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1336 - SN _____

(Sigma) A METHOD FOR PRODUCING METAL CARBIDE HEAT SOURCES

S. C. Deevi, M. R. Hajaligol, and D. B. Losee
Physical Research/Whidby/Charles

A heat source comprising metal carbides and a method for preparing the same using reducing/carbidizing atmosphere is provided. The metal carbides making up the heat source have ignition temperatures that are substantially lower than conventional carbon particles normally used in carbonaceous heat sources, while at the same time provide sufficient heat to release a flavored aerosol, from a flavor bed for inhalation by the smoker. Upon combustion, the heat source produces substantially no carbon monoxide.

Schardt/F&N/Hintz
Filed in PTO.

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2020109298

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1337 - SN 444746

(Beta) FLAVOR GENERATING ARTICLE (FLAVOR DOT - MULTIPLE AG BED)

M. E. Counts, B. C. LaRoy, D. B. Losee, C. H. Morgan, U. Smith, F. M. Sprinkel, F. V. Utsch
Physical Research/Whidby/Charles

An article is provided in which a flavor generating medium is electrically heated to evolve inhale the flavors or other components in vapor or aerosol form. The article has a plurality of charges of the flavor generating medium which are heated sequentially to provide individual puffs.

See also 1335

Schardt/F&N/Ingerman

12-1-89	Filed in PTO; assignment recorded.
2-1-90	Preliminary amendment filed.
3-29-90	1st action.
9-17-90	Response and IDS filed.

Corresponding foreign applications filed in Australia, Canada, Japan, South Korea, Turkey, Norway, and the EPO designating all countries except Luxembourg.

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2020109299

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1338 - SN 385006

(Delta/Sigma) TUBE CUTTING AND FORMING APPARATUS (ROLLED END TUBE)

Jack C. Wheless, Billy J. Keen, and Renzer R. Ritt
Engineering/Keen/Taylor

An apparatus for cutting and forming tubular members is disclosed. The tubular members are carried by a plurality of fluted drums from one operation to the next. The tubular members are cut to the desired size by a plurality of rotating circular knives. The ends of the tubular members are formed by one or more dies that are caused to move into contact with the ends of the tubular members.

Schardt/F&N/A. Smith

7-25-89	Filed in PTO with IDS; assignment recorded.
8-31-90	1st action allowing all claims.
9-21-90	F&N asked to review 1338 art in relationship to PM 1339.
10-10-90	Response filed.

Corresponding foreign applications filed in Japan, East Germany, and the EPO.

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20201109300

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1339 - SN 494598

(Sigma/Delta) APPARATUS FOR CUTTING THIN-WALLED TUBES

Josef A. Boukal, Mike Braunshteyn, Jack C. Wheless, and Kathleen S. Whittle
Engineering/Keen/Taylor

An apparatus for precision cutting lightweight, thin-walled tubes that includes a means for transporting rough cut, thin-walled tubes from a source of supply past a first inspection station to determine if the tubes are crushed beyond a predetermined amount, a flaring station to flare the tube ends, an aligning station to align the tubes from cutting, and a cutting station to cut the tube into multiple sections. A selection means is provided that has second and third inspection means to determine if the tubes have been properly cut.

Schardt/F&N/Kelly
3-16-90 Filed in PTO.
9-21-90 F&N asked to review 1338 art in relationship to PM 1339.

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20020109301

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1340 - SN 494761

(Sigma/Delta) APPARATUS MAKING THIN LAMINATE STRUCTURES AND FORMING THE STRUCTURES INTO LIGHTWEIGHT, THIN-WALLED TUBES

Mike Braunshteyn, James E. Hall, Reginald W. Newsome, Jack C. Wheless, and Kathleen S. Whittle
Engineering/Keen/Taylor

An apparatus for laminating at least two strips of strip material and forming the laminate into lightweight, thin-walled tubular members that may be used in the construction of non-combustion smoking articles.

Schardt/F&N/Kennard
3-16-90 Filed in PTO.
8-6-90 Assignment recorded.

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20020109302

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1343 - SN 493755

(Sigma/Delta) IMPROVED TENSIONING AND GLUING METHODS AND APPARATUS FOR TUBE WINDING MACHINES

Edwin L. Cutright, Billy J. Keen, Jr., G. Robert Scott, and Peter C. Van Davelaar (Jewett)
Engineering/Keen/Taylor

One or more tapes being pulled toward the mandrel of a tube winding machine are tensioned by passing them over successive vacuum chambers. Glue is applied to one or more tapes between the successive vacuum chambers. If the tube winding machine stops for any reason, the vacuum chambers keep the tapes to which glue is applied taut, and those tapes are moved out of contact with the glue applying member. The length of each tape which is in contact with the glue applying member can be adjusted to adjust the amount of glue applied to the tape. Heat can be applied to each tape after glue has been applied in order to promote curing of the glue.

See also 1375

Schardt/F&N/Jackson

3-15-90	Filed in PTO; assignment recorded.
5-22-90	IDS filed.
9-4-90	1st action rejecting all claims.
11-14-90	Amendment filed.
12-14-90	Notice of allowance (fee due March 14 - Jackson will pay).
1-17-91	Call to Jackson to hold off on issue fee.

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20201109303

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1345 - SN 444818

(Beta) FLAVOR DELIVERY ARTICLE (SINGLE AG BED)

M. E. Counts, M. R. Hajaligol, C. H. Morgan, U. Smith, F. M. Sprinkel, F. V. Utsch,
Physical Research/Whidby/Charles

Methods and apparatus for releasing flavor components from a flavor-generating medium using an electric heating element are provided. A non-combustion flavor-generating article uses electrical energy to power a heating element which heats tobacco or other flavorants. The flavor-generating medium is formed into a packed bed. Energy delivered to the heating element is regulated to maintain the flavor-generating medium at a relatively constant operating temperature to ensure a relatively constant release of flavor.

PM 1330, 1344, 1369 combined herewith

Schardt/F&N/deBlasi

12-1-89	Filed in PTO.
2-8-90	Preliminary amendment filed.
5-16-90	IDS filed.
12-20-90	1st action (response due March 20--deBlasi drafting response).

Corresponding foreign applications filed in Australia, Canada, Japan, South Korea, Norway, and the EPO designating all countries.

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2020109304

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1347 - SN 556732

(Sigma) CATALYTIC CONVERSION OF CARBON MONOXIDE FROM CARBONACEOUS HEAT SOURCES

S. C. Deevi, M. R. Hajaligol, D. S. Kellogg, and B. E. Waymack
Physical Research/Whidby/Charles

This invention relates to an improved carbonaceous heat source, particularly useful in a smoking article, comprising a carbon component and a metal species. Upon combustion, the metal species acts as a catalyst to convert substantially all of the carbon monoxide produced on combustion of the carbon component to a benign substances.

Schardt/F&N/Boyer
7-20-90 Filed in PTO; assignment recorded.

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20201109305

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1349 - SN 315388

(Delta/Sigma) WRAPPER FOR SMOKING ARTICLES AND METHOD FOR PREPARING SAME (SOL-GEL)

A. G. Kallianos, A. C. Lilly, J. F. Whidby, and R. W. Dwyer
Flavor Development/Spielberg/Myracle

A wrapper for smoking articles having controllable combustion characteristics, including substantially no sidestream smoke. The wrapper comprises cigarette paper and a ceramic formed by a sol-gel process.

Schardt/F&N/Hintz

2-23-89	Filed in PTO.
5-15-89	Preliminary amendment filed.
6-5-89	IDS filed.
6-8-89	1st action.
10-6-89	Response filed.
12-15-89	Supplemental IDS filed.
1-19-90	2nd action allowing 23-24, rejecting 1-5, 9-15, 18-19, 6, and 8, and objecting to 7, 16-17, and 20-22.
4-12-90	Response, affidavit and supplemental IDS filed.
5-16-90	Further supplemental IDS filed.
8-3-90	3rd action - final.
8-14-90	Proposed response discussed with Hintz.
8-22-90	Supplemental IDS filed.
8-23-90	Notice of allowance.
10-31-90	Issue fee paid.
11-15-90	Application to Long at Shook Hardy for review.

Corresponding foreign applications filed in 55 countries.

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20201109306

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1350 - SN 342239 *** ISSUED ***

CONTAINER FOR ADDITIVE MATERIALS FOR SMOKING ARTICLES

Gus D. Keritsis
Cigarette Technology/Gauvin/Myracle

A container for containing an additive material for modifying the characteristics of a smoking article.

Schardt/F&N/Isackson

4-24-89	Filed in PTO; assignment recorded.
7-5-89	Proposed IDS received.
7-5-89	Preliminary amendment filed.
7-20-89	Formal drawings filed.
11-14-89	1st action--restriction requirement.
12-14-89	2nd preliminary amendment and election filed.
2-21-90	2nd action allowing 1 and 13-16, rejecting 2, and subjecting 1-16 to restriction.
5-14-90	Response filed.
9-11-90	Notice of allowance.
11-20-90	Issue fee paid.
2-12-91	Issued: 4991605

Corresponding foreign applications filed in Japan and the EPO designating all countries except Luxembourg.

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2020109307

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1350 DIV - SN 616197

CONTAINER FOR ADDITIVE MATERIALS FOR SMOKING ARTICLES

Gus D. Keritsis
Cigarette Technology/Gauvin/Myracle

A container for containing an additive material for modifying the characteristics of a smoking article.

Schardt/F&N/Isackson
11-20-90 Filed in PTO.

Foreign applications corresponding to the parent case filed in Japan and the EPO designating all countries except Luxembourg.

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2020109308

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1356 - SN 383717

(Project ART) CONTINUOUS CONCENTRATION MONITORING BY CIRCULAR DICHROISM

D. Leyden
Analytical Research/Cox/Charles

Circularly polarized monochromatic electromagnetic radiation of a wavelength correlating the maximum absorbance of a sample compound is directed through a flowing solution containing the sample compound, which exhibits circular dichroism activity, and a plurality of other compounds. Measurement of the circular dichroism effect and comparison of an alternating current signal corresponding to the circular dichroism absorption to a direct current component allows for the constant monitoring of the concentration of the sample compound in the flowing solution. The flowing solution may be under high temperature and pressure and may comprise a supercritical fluid.

Schardt/F&N/Hubbard

7-24-89	Filed in PTO; assignment recorded.
9-25-89	IDS filed.
4-12-90	1st action rejecting all claims.
8-30-90	Amendment filed.
9-21-90	Notice of allowance.
12-14-90	Issue fee paid; formal drawings submitted.

Corresponding foreign applications filed in South Korea, East Germany, and the EPO.

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20201109309

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1357 - SN 361245

(Paper Technology) SMOKING ARTICLE EXHIBITING REDUCED SIDESTREAM SMOKE, AND WRAPPER PAPER THEREFOR (TRIM 5)

Barbro L. Goodman and Willie G. Houck
Domestic Product Development/Heretick/Myracle
Cigarette Technology/Gauvin/Myracle

The sidestream smoke associated with a cigarette or cigarette-like smoking article is reduced by wrapping the tobacco in a double layer of paper. Each layer includes calcium carbonate and a burn control chemical. The outer layer also preferably includes monoammonium phosphate and sodium carboxy methyl cellulose. The calcium carbonate employed has a relatively high surface area per unit weight. The porosity of the outer layer is adjusted by electrostatic perforation.

cf. D480

Schardt/F&N/Schneider

6-5-89	Filed in PTO; assignment recorded.
12-8-89	IDS filed.
3-2-90	1st action allowing all claims.
8-15-90	Amendment filed.
9-25-90	Notice of allowance.
12-5-90	Issue fee paid.

Corresponding foreign applications filed in Japan, South Korea, Portugal, Turkey, South Africa, East Germany, Norway, Finland, and the EPO designating all countries.

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2020109310

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1365 - SN 365137

(Paper Technology) MULTIPLE LAYER CIGARETTE PAPER FOR REDUCING SIDESTREAM SMOKE

The sidestream smoke associated with a cigarette or cigarette-like smoking article is reduced by wrapping the tobacco in a single sheet or paper having multiple layers.

S. D. Baldwin, R. M. Rogers, G. H. Bokelman, S. S. Tafur
Chemical Research/Ferguson/Charles

Schardt/F&N/Lee

6-12-89	Filed in PTO; assignment recorded.
3-2-90	1st action allowing 4-10, rejecting 1, and objecting to 2-3 (Lee drafting response).
10-29-90	Status inquiry filed (action incomplete--waiting for reference).

Corresponding foreign applications filed in Japan, South Korea, Portugal, Turkey, South Africa, East Germany, Norway, Finland, and the EPO designating all countries.

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2020109311

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1370 - SN 567020

CONDITIONING CYLINDER WITH FLIGHTS, BACKMIXING BAFFLES, CONDITIONING NOZZLES AND AIR RECIRCULATION

John C. Strang and Steve G. Muller
Engineering/Keen/Taylor

An apparatus and method for conditioning tobacco or other similar materials. In the preferred embodiment, a conditioning cylinder comprises a plurality of flights, backmixing baffles, and ejection baffles, all mounted to the interior wall of a cylinder. Rotation of the cylinder mixes and conveys the material. A spray nozzle assembly is positioned adjacent to the entrance of the cylinder and comprises spray nozzles. The spray nozzles are aimed at a plurality of predetermined target areas within the cylinder for directing a conditioning spray onto the material in the target areas. A recirculation conduit recirculates air exiting the cylinder and, before reentering the cylinder, combines the recirculated air with ambient air from fresh air make-up ports.

Glenn/F&N/A. Smith
8-14-90 Filed in PTO.

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20020109312

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1371 - SN 481949

(Manufacturing) SPRAY CYLINDER WITH RETRACTABLE PINS

John Watson
Engineering/Keen/Taylor

Retractable, self-cleaning pins are mounted on a rotating spray cylinder. Each pin is caused to extend into the cylinder during the upward motion of the pin in order to help convey material within the cylinder. Retraction of each pin occurs during its downward motion in order to remove material adhered to the pin. Reduces or eliminates the accumulation of tobacco around pins located inside a Burley spray cylinder, which will improve the quality of Burley tobacco conveyed through the cylinder.

Schardt/F&N/Jackson

2-20-90	Filed in PTO; assignment recorded.
4-23-90	IDS and formal drawings filed.
8-3-90	1st action allowing all claims.
8-30-90	Response filed.
11-8-90	2nd action rejecting all claims.
12-4-90	Amendmend filed.

Corresponding foreign applications filed in Australia, Japan, South Korea, and the EPO designating all countries.

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20201109313

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1372 - SN 557123

SCINTILLATION TUBE DYNAMIC CALIBRATION MONITOR AND FEEDBACK REGULATOR

David E. Sharpe
Engineering/Keen/Taylor

A scintillation tube dynamic calibration monitor and means for regulating the high voltage power supply to the detector are provided. In a preferred embodiment, a voltage boost current source provides an input voltage for a power out voltage regulator and for a +14.75 volt board regulator. The board regulator provides a voltage reference for various circuitry, and provides a voltage reference for coarse calibration and display calibration adjustment circuitry. The power voltage regulator provides the high voltage power supply drive signal. An error amplifier drives an integrator, which, in turn, drives a bargraph display. An optically-isolated output circuit drives an external alarm or relay. In an alternative embodiment, the pulse width of a detected circuit is linearized and converted to an analog control signal. The analog control signal drives conventional power supply control circuitry.

Schardt/F&N/deBlasi
7-23-90 Filed in PTO; assignment recorded.
10-31-90 IDS filed.

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20201109314

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1373 - SN 410933 *** ISSUED ***

(Paper Technology) METHODS AND APPARATUS FOR MEASURING SIDESTREAM SMOKE

Douglas D. McRae, Bobby W. Francis, Leonard Brown, Jr., and Roger A. Comes
Chemical Research/Ferguson/Charles

Methods and apparatus for continuously and instantaneously measuring sidestream smoke are provided. A hood assembly is provided to fit over the ports of a conventional smoking machine. Sidestream smoke produced by test cigarettes is continuously drawn through the hood by an exhaust system. A laser beam is passed through the smoke one or more times before the beam is sensed by a photodiode detector. An electrical signal from the detector representing the light transmission is received by a strip recorder or computer system. The transmission measurements are used to calculate the extinction coefficient of the smoke for comparison purposes.

Schardt/F&N/deBlasi

9-22-89	Filed in PTO; assignment recorded.
5-8-90	IDS filed.
6-28-90	Notice of allowance.
9-21-90	Issue fee paid.
12-25-90	Issued: 4980571.

Corresponding foreign applications filed in Japan and the EPO designating all countries.

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2020109315

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1375 - SN 493718

(Sigma/Delta) SPIRAL TUBE MAKING METHODS AND APPARATUS INCLUDING SPLICE REJECTION

Peter C. Van Davelaar (Jewett Automation)
Engineering/Keen/Taylor

In apparatus for forming cut lengths of tube by winding one or more strips of material into a continuously advancing spiral wound tube and periodically cutting off lengths of the tube, lengths of tube containing splices present in the strips are rejected at a rejection point downstream from the cut-off point by monitoring the strips for splices prior to winding, waiting the time interval required for a splice to reach the rejection point, and rejecting the length of tube at the rejection point when the time interval has elapsed.

See also 1343

Schardt/F&N/Jackson

3-15-90	Filed in PTO; assignment recorded.
5-22-90	IDS filed.
9-14-90	1st action rejecting all claims.
11-19-90	Amendment filed.
12-21-90	2nd action - final.
1-30-91	Amendment filed.

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20020109316

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1379 - SN 938743 *** ISSUED ***

(Design) ANGLED HIGH PROFILE HEADER FOR FOUR-POINT SPINNER
William Prendergast - Trans World Mfg. Corp. (to be reassigned to PM)

Schardt/F&N/Albert

12-5-86	Filed in PTO.
4-14-89	Action rejecting the claim.
10-13-89	Amendment filed.
1-24-90	Assignment recorded.
3-22-90	Notice of allowance.
4-30-90	Issue fee paid.
2-5-91	Issued: D314293.

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20201093117

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1389 - SN 443636

(Delta/Sigma) CHEMICAL HEAT SOURCE COMPRISING METAL NITRIDE, METAL OXIDE, AND CARBON

M. R. Hajaligol, S. C. Deevi, S. D. Ariprala, D. B. Losee, B. E. Waymack, and M. L. Watkins
Physical Research/Whidby/Charles

A chemical heat source comprising meatl nitride, metal oxide and carbon, particularly useful in smoking articles, and methods of making the heat source are provided. The metal nitride of the heat source has an ignition temperature substantially lower than conventional carbonaceous heat sources, while at the same time provides sufficient heat to release a flavored aerosol from a flavor bed for inhalation by the smoker. Upon combustion the heat source produces virtually no carbon monoxide. The metal nitride is prepared by pre-forming the starting materials into a desired shape, and converting them to metal nitride in situ, without substantially altering the shape of the starting materials.

Schardt/F&N/Boyer/Loring
11-29-89 Filed in PTO.

Corresponding foreign applications filed in Japan, South Korea, and the EPO designating all countries except Luxembourg.

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20201109318

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1392 (CIP of PM 1279) - SN _____

(Bonded Ends) DROPLET JET APPLICATION OF ADHESIVE OR FLAVORING SOLUTIONS TO CIGARETTE ENDS

Robert T. Gaudlitz, Hugh J. McCafferty, and J. M. Washington
Development Engineering/Burns/Burnley

A method and apparatus are provided for applying an adhesive or flavoring solution to the coal end of a cigarette by means of a precisely controlled liquid jet spray to bond shreds of tobacco in the cigarette end and to thereby reduce the amount of tobacco which falls out of the cigarette when shaken. Electronic controls are employed to synchronize the formation and charging of a series of droplets which are deflected in prescribed paths to contact the coal end of the cigarette in a predetermined pattern. Circuits are provided to adjust the timing and phase of the charging mechanism to compensate for variations in the speed at which the cigarette is conveyed to a target area and for variations in the timing of droplet formation.,

Schardt/F&N/Godziela
12-12-90 Filed in PTO.

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2020109319

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1393 - SN 429317

(Paper Technology) WRAPPER FOR SMOKING ARTICLE (KH_2PO_4 - SIDESTREAM REDUCTION)

G. H. Bokelman, S. D. Baldwin, S. Tafur, R. N. Ferguson, B. L. Goodman, and R. M. Rogers
Chemical Research/Ferguson/Charles

The sidestream smoke associated with a cigarette or cigarette-like smoking article is reduced by wrapping the tobacco in a paper wrapper having a burn retardant added thereto.

See also PM 1466

Glenn/F&N/Lee

10-31-89	Filed in PTO; assignment recorded.
1-3-89	In-house search results forwarded to Lee.
1-12-90	Information disclosure statement filed.
3-15-90	Memo from Bokelman with information for potential CIP--copy forwarded to Lee.
5-9-90	Meeting with Lee/Bokelman/Baldwin to review data for CIP.
8-3-90	1st action.
9-5-90	Meeting with inventors/Lee--will contest 102 rejection on basis that claim 13 recites acidic.
10-24-90	Response filed.
12-20-90	2nd action (response due March 20).
1-8-91	Draft response received.

Corresponding foreign applications filed in Japan, South Korea, Portugal, Turkey, South Africa, East Germany, Norway, Finland, and EPO designating all countries.

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20201109320

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1398 - SN

(Sigma/Delta) SMOKING COMPOSITIONS CONTAINING A MENTHOL-RELEASE ADDITIVE

W. Geoffrey Chan
Chemical Research/Ferguson/Charles

In one embodiment, this invention provides a smoking compotision which contains a flavorant additive which releases menthol under normal cigarette smoking conditions. The menthol-release additive is a mixture of menthyloxycarbonylglucose compounds which include more than 35 mole percent of 1-0-menthyloxycarbonyl-beta-d-glucopyranose and more than about 20 mole percent of 1,6-di-0-menthyloxycarbonyl-beta-d-glucopyranose.

Schardt/Depaoli/Giancola
11-15-90 Filed in PTO.

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2020109321

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1400 - SN 496584

(Ambrosia) SMOKING COMPOSITIONS CONTAINING A FLAVORANT ADDITIVE

Kenneth F. Podraza
Chemical Research/Ferguson/Charles

In one of its embodiments this invention provides smoking compositions which contain a benzofuranone flavorant additive as illustrated by cis 6-phenyl-3a,4,5,7a-tetrahydro-2(3H)-benzofuranone. Under normal cigarette smoking conditions, the benzofuranone additive volatilizes and enhances the flavor and aroma of the mainstream and sidestream smoke.

Schardt/Depaoli
3-21-90 Filed in PTO; assignment recorded.
12-20-90 1st action.
1-3-91 Response filed.

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2020109322

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1402 - SN 428926

METHODS AND APPARATUS FOR OPTICAL PRODUCT INSPECTION

David Casasent
Carnegie Mellon

Lines of text (e.g., printing on a product) are verified by forming a one-dimensional image of each line substantially parallel to its length. This one-dimensional image information is compared to corresponding information for the intended lines of text. This comparison is preferably done using acousto-optic correlator systems. Space and frequency multiplexing may be used to allow parallel processing of several lines of text and/or to allow comparisons with multiple references to be made simultaneously. The invention may be used to determine the acceptability of products based on the correctness of the text image, and to reject products on which the correct text does not appear.

Schardt/F&N/Jackson
10-30-89 Filed in PTO; assignment recorded.
1-16-90 Information disclosure statement filed.
2-1-90 Formal drawings filed.
9-27-90 1st action rejecting all claims.
12-4-90 Amendment filed.

Corresponding foreign applications filed in Australia, Brazil, Japan, South Korea, Turkey, and the EPO designating all countries.

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20201109323

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1404 - SN 550177

STRING DOFFER MECHANISM

George S. Bosell, Joao C. A. Gomes, and Joseph P. Maciejczyk
Engineering/Keen/Taylor

A mechanism for removal of contaminants from a stream of material having a plurality of rotatable cylindrical doffer elements each having flights supplied with cleaning means thereon mounted substantially parallel to one another within a frame. The mechanism is provided with means for adjusting both the positions along the frame of the doffer elements as well as the vertical elevation of the doffer elements with respect to the frame.

Glenn/F&N/Panichi
7-9-90 Filed in PTO.
9-10-90 Assignment recorded.
10-3-90 IDS filed.

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20201109324

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1410 - SN 600437

AUTOMATED BOX BLANK HANDLING SYSTEM

D. Brookman, E. Grollimund, G. Grollimund, and S. F. Spiers
Engineering/Keen/Taylor

A system is provided for packing, shipping and automated unloading of stacks of box blanks so as to minimize damage to the box blanks and facilitate the insertion of the box blanks into an automated packaging machine. A fitted shipping case, filled with stacks of box blanks and upper and lower inserts, has a plurality of holes in its upper and lower flaps for cooperating with an automated unloading machine. The inserts enclosed in the shipping case minimize damage due to shifting of the box blank stacks, provide added resistance against case failure during transit, and cooperate with the automated unloading machine to facilitate removal of the box blank stacks from the shipping case. The automated shipping case unloading machine features a stationary case gripping portion, an upper portion for opening the shipping case and removing the upper insert, and a plurality of carriage assemblies for lifting the stacks of box blanks out of the shipping case and conveniently presenting the stacks to the human operator.

Glenn/F&N/Pisano
10-19-90 Filed in PTO.

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20201109325

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1412 - SN _____

PUTRESCINE N-METHYLTRANSFERASE, RECOMBINANT DNA MOLECULES, ENCODING PUTRESCINE N-METHYLTRANSFERASE, AND TRANSGENIC TOBACCO PLANTS WITH ALTERED NICOTINE CONTENT

H. Y. Nakatani and V. S. Malik
Biochemical Research/Ellis/Charles

There is provided highly purified tobacco putrescine N-methyltransferase, a process for its purification, and production of PMT DNA sequence. The purification process includes the step of applying a tobacco root extract to an anion exchange medium and specifically eluting putrescine N-methyltransferase with an elution buffer comprising putrescine.

Glenn/F&N/Creason
11-14-90 Filed in PTO.

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20020109326

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1417 - SN 493756 *** ABANDONED ***

(Sigma/Delta) SPIRAL TUBE WINDER CONTROL METHODS AND APPARATUS

Richard Reich and Peter C. Van Davelaar (Jewett)
Engineering/Keen/Taylor

Spin-off of PM 1343 and 1375

In apparatus for forming cut lengths of tube by winding one or more strips of material into a continuously advancing spiral wound tube and periodically cutting off lengths of the tube, the cut-off mechanism is controlled in response to the speed at which a representative strip is being pulled into the machine. This allows tube length to be more precisely and uniformly controlled, as well as making tube length independent of machine operating speed. The glue applying mechanism can also be controlled in the same way in order to ensure that the strips receiving glue receive the same amount of glue regardless of the rate at which the machine is operated.

Schardt/F&N/Jackson

3-15-90	Filed in PTO.
5-22-90	IDS filed.
9-4-90	1st action rejecting all claims.
11-14-90	Abandoned.

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20201109327

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1418 - SN 565127

(Ambrosia) SMOKING COMPOSITIONS CONTAINING A VANILLIN-RELEASE ADDITIVE

Y. Houminer, K. Podraza, and E. Southwick
Chemical Research/Ferguson/Charles

This invention provides smoking compositions which contain a novel vanillyl 5-hydroxyester flavorant-release additive. Under cigarette smoking conditions, a combustible filler and/or paper wrapper additive such as 4'-formyl-2'-methoxyphenyl 5-hydroxy-2-isopropylhexanoate pyrolyzes into vanillin and 2-isopropyl-5-hydroxyhexanoic acid delta lactone flavorants as volatile components of the cigarette smoke.

Schardt/Depaoli
8-10-90 Filed in PTO; assignment recorded.

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2020109328

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1419 - SN 537775

(Ambrosia) SMOKING COMPOSITIONS CONTAINING A VANILLIN-RELEASE BETA-HYDROXYESTER ADDITIVE

G. Chan, Y. Houminer, J. Paine, and K. Podraza,
Chemical Research/Ferguson/Charles

This invention provides smoking compositions which contain a novel beta-hydroxyester flavorant-release additive. Under cigarette smoking conditions, a combustible filler and/or paper wrapper additive such as ethyl 3-hydroxy-3-(4'-hydroxy-3'-methoxyphenyl)-2-phenylpropanoate pyrolyzes into vanillin and ethyl phenylacetate flavorants as volatile components of the cigarette smoke.

See also PM 1464

Schardt/Depaoli
6-13-90 Filed in PTO.

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PM 1420DES - SN 627966

(Ambrosia) ODORLESS ASHTRAY

R. W. Newsome
Cigarette Technology/Gauvin/Myracle

Design for an odorless ashtray.

Glenn/F&N/Solomon
12-17-90 Filed in PTO.

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2020109329

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1421 - SN 493720

(Sigma/Delta) SPIRAL TUBE WINDING METHODS AND APPARATUS INCLUDING PLY BREAK SENSING
Peter Van Davelaar (Jewett)

In a spiral tube winder, the plies going to the winding mechanism are monitored to make sure that no ply is broken. If any ply breaks, the machine is stopped so that the broken ply does not become entangled in the apparatus, especially in the glue applying portion of the apparatus. The ply break detection system is automatically activated for each ply lane that is in use so that plies can be added while the machine is in operation, with the result that the ply break protection for each such added ply comes on automatically after that ply has been added.

Related to PM 1343, 1375, and 1417

Schardt/F&N/Jackson

3-15-90	Filed in PTO; assignment recorded.
5-12-90	Formal drawings submitted.
6-12-90	IDS filed.
10-15-90	1st action rejection all claims.
11-14-90	Amendment filed.
12-14-90	Notice of allowance (fee due March 14 - Jackson will pay).
1-17-91	Call to Jackson to hold off on issue fee.

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20201109330

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1429 - SN 614620

(Paper Technology - Project Tomorrow - "Daubing Dandy") PAPER HAVING CROSSDIRECTIONAL REGIONS OF VARIABLE BASIS WEIGHT

J. Allen, G. H. Bokelman, N. Gautam, D. Kraske, J. L. Myracle, R. M. Rogers, and E. B. Sanders

This invention refers to a paper having cross directional regions having increased basis weight. The paper of this invention is especially useful as a wrapping material for a smoking article. The paper may be produced by depositing additional material onto a moving base web in a papermaking machine. The additional material is deposited by means of a rotating drum containing a plurality of slits through which the additional material passes.

Glenn/F&N/Boyer
11-16-90 Filed in PTO.

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20201109331

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1430 - SN 565126

(Ambrosia) SMOKING COMPOSITIONS CONTAINING A VANILLIN-RELEASE ADDITIVE

R. Southwick
Chemical Research/Grubbs/Charles

This invention provides smoking compositions which contain a novel di-vanillyl ester flavorant-release additive. Under cigarette smoking conditions, a combustible filler and/or paper wrapper additive such as di-ethylvanillyl oxalate pyrolyzes and releases ethylvanillin as a volatile flavorant component of the cigarette smoke.

Schardt/Depaoli
8-10-90 Filed in PTO; assignment recorded.

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2020109332

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1432 - SN 568358

(Manufacturing/Cartier 10) PROCESS FOR PACKAGING CIGARETTES

J. Adams, J. D. Barnes, R. C. Donoff, H. H. Fishburne, V. L. Maclauchlan, X. M. Pham, L. L. Pitt, S. R. Rinehart, J. Tomanovits, and D. C. Wilder
Engineering/Keen/Taylor

A process for efficiently packaging cigarettes into an oval pack having plastic end caps is provided.

Glenn/F&N/Solomon
8-15-90 Filed in PTO.
10-10-90 Preliminary amendment filed.

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PM 1435 - SN 567810

(Manufacturing/Cartier 10) METHOD WHERE EXPOSED FOIL ON TOP OF CIGARETTE BUNDLE IS FLAT WITH NO APPARENT FOLDS

John D. Barnes, Howard H. Fishburne, Xuan M. Pham, and Linwood L. Pitt
Engineering/Keen/Taylor

A method of folding foil around cigarette bundles where the exposed foil on the top of the bundle is flat with no apparent folds. The smooth flat appearance is created by forming the top folds prior to forming the side folds. Notches cut into the foil by which folding stresses on the outermost cigarettes in the bundle are reduced are also provided.

Glenn/F&N/Panichi
8-15-90 Filed in PTO; assignment recorded.
12-13-90 IDS filed.

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2020109333

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1437 - SN 567808

(Manufacturing/Cartier 10) CIGARETTE BOX ENDCAP INSERTION METHOD AND APPARATUS

Vic Maclauchlan
Engineering/Keen/Taylor

This disclosure is for a method and apparatus for inserting one or more endcaps into the ends of a cigarette box. The box is placed on a slide in the apparatus and the slide moves along a predetermined path through the apparatus. Along the path, the box is aligned and pushers push endcaps into the end of the cigarette box. A uniform box with a desirec cross-sectional shape is produced.

Glenn/F&N/Krasnow
8-15-90 Filed in PTO; assignment recorded.

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2020109334

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1438 - SN 567806

(Manufacturing/Cartier 10) METHOD AND APPARATUS FOR ULTRASONICALLY BONDING ENDCAPS TO A CONTAINER OF DISSIMILAR MATERIAL

Jonah Adams and Steve Rinehart
Engineering/Keen/Taylor

A method and apparatus are provided for ultrasonically bonding endcaps to a food or tobacco product container comprised of a material dissimilar from the endcaps. Ultrasonic vibration is applied to the joint between the container and the endcaps, which includes a strip of preapplied adhesive, so that the adhesive partially melts. The partially melted adhesive quickly resolidifies, providing a durable bond without the disadvantageous and time consuming use of wet glues. The apparatus includes a pair of opposingly mounted ultrasonic devices, a controller associated with each ultrasonic device, and a general purpose computer programmed to synchronize and monitor the controllers.

Glenn/F&N/Pisano
8-15-90 Filed in PTO.
10-5-90 IDS filed.

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20020109335

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1444 - SN 600423

(Paper Technology) WRAPPER FOR A SMOKING ARTICLE

G. H. Bokelman, J. A Fournier, A. G. Kallianos, J. B. Paine, K. F. Podraza, J. I. Seeman
Chemical Research/Grubbs/Charles

An improved smoking article wrapper which significantly reduces sidestream smoke using magnesium carbonate in the form of magnesite as a filler. Smoking articles which employ the wrappers exhibit a significant reduction in sidestream smoke without adverse effect on subjective characteristics.

See also PM 1494, 1441, 1466, and 1511

Glenn/F&N/Schneider
10-19-90 Filed in PTO.

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20201109336

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1452 - SN 622820

(Design) CIGARETTE PACK DISPLAY CONTAINER

David G. Bragin and Frederick M. Della Crosse
New Products Group

A cigarette box container. The container includes a plural-sided body with a transparent plastic face protruding on each side thereby providing a pocket for receipt of a cigarette box. Cigarette boxes placed in each pocket can be viewed through each face. The top wall is protruded above the top edge of the side walls to assist in any stacking of the cigarette box containers, if such stacking is desired.

See also PM 1452 DES

Glenn/F&N/Lee
12-5-90 Filed in PTO.

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20020109337

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1452 DES - SN 622803

(Design) CIGARETTE PACK DISPLAY CONTAINER

David G. Bragin and Frederick M. Della Crosse
New Products Group

A cigarette box container. The container includes a plural-sided body with a transparent plastic face protruding on each side thereby providing a pocket for receipt of a cigarette box. Cigarette boxes placed in each pocket can be viewed through each face. The top wall is protruded above the top edge of the side walls to assist in any stacking of the cigarette box containers, if such stacking is desired.

See also PM 1452

Glenn/F&N/Solomon
12-5-90 Filed in PTO.

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2020109338

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1454 - SN 584803

(Cartier 10) METHODS AND APPARATUS FOR APPLYING C-SHAPED INNERFRAMES TO CIGARETTE BUNDLES

John Tomanovits
Engineering/Keen/Taylor

A C-shaped innerframe is preformed and then applied to a preformed cigarette bundle as part of a cigarette packing operation. The preformed innerframe first contacts the bundle with the back of the C in contact with the front surface of the bundle, and with the arms of the C adjacent the sides of the bundle and projecting rearwardly behind the rear surface of the bundle. Thereafter, the arms of the C are brought in against the side and rear surfaces of the bundle to complete application of the innerframe to the bundle.

Glenn/F&N/Jackson

9-19-90	Filed in PTO; assignment recorded.
12-5-90	IDS filed.
12-18-90	1st action rejecting all claims (response due March 18).
1-2-91	Draft response received.

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2020109339

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1455 - SN 07/605,860

(Delta/Sigma) REFLECTOR SLEEVE FOR FLAVOR GENERATING ARTICLE

Mike Braunshteyn, Drew Gillespie, and John Hamersley
Engineering/Keen/Taylor

A radiant energy reflector sleeve is provided for a smoking or flavor generating article of the type having a heat source and a flavor bed which generates a flavored aerosol or other flavors when heated. The sleeve can be erected from a one-piece foil blank in a continuous or semi-continuous process as part of the assembly of the article.

Schardt/F&N/Ingerman
10-17-90 Filed in PTO.

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PM 1456 - SN 585224

(Cartier 20) APPARATUS FOR FORMING INNERFRAME FOR CIGARETTE PACK WITH ROUNDED CORNERS

John Tomanovits
Engineering/Keen/Taylor

Apparatus is shown for preforming a rounded-corner C-shaped innerframe for use in a rounded corner cigarette pack. Contoured rollers are used to preform the rounded corners in the innerframe.

Glenn/F&N/Jackson
9-19-90 Filed in PTO.
11-9-90 Formal drawings submitted.
12-5-90 IDS filed.

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2020109340

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1460 (D636) - SN _____

APPARATUS AND METHODS FOR CUTTING RODS INTO LENGTHS FOR CIGARETTE MAKERS

M. A. Church, M. H. Dalton, Sherman C. Roane
Engineering/Keen/Taylor

Relates to improvements in cutting a continuous rod of material into lengths, particularly cutting an advancing cigarette rod into uniform lengths.

Glenn/F&N/Isackson
Filed in PTO.

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PM 1466 (CIP OF PM 1393) - SN 596526

(Paper Technology) WRAPPER FOR A SMOKING ARTICLE

S. D. Baldwin, G. H. Bokelman, B. L. Goodman, B. L. Floyd, and S. S. Tafur
Chemical Research/Grubbs/Charles

The sidestream smoke associated with a cigarette or cigarette-like smoking article is reduced by wrapping the tobacco in a paper wrapper having an additive, such as an organic acid, an acidic salt or an organic acid in combination with an acidic salt added thereto.

See also PM 1444, 1494, 1441, and 1511

Glenn/F&N/Lee
10-12-90 Filed in PTO with IDS.

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2020109341

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1469 - SN 299053

OVERWRAP INSERT

D. A. Thomas, R. M. O'Connell, R. C. Reinert, and J. M. Gillin
Alford Packaging

Paper stock is unwound, printed, folded, laminated and cut to form inserts. The laminated inserts are applied to an overwrap at an appropriately spaced interval. The resultant overwrap can then be wrapped around cigarette packs to provide each pack with an insert without slowing down production.

Schardt/Ostrolenk

1-19-89	Filed in PTO.
4-30-90	1st action.
7-30-90	Response filed.
10-24-90	Notice of allowance (issue fee due January 24).
11-16-90	Ostrolenk instructed to pay fee.

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PM 1471 (D637) - SN _____

TOBACCO ROD SUPPORT AND CONTROL MEANS

K. Vandeveer
Engineering/Keen/Taylor

A longitudinally moving rod support and control apparatus which effectively reduces the bounce and flutter of high speed rods is provided with a top control plate and a bottom rod knocker. This is useful in the tobacco industry where high speed tobacco rods require support and control between processing machines.

Glenn/F&N/Krasnow
Filed in PTO.

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2020109342

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1475 (D633) - SN 615590

(Beta) FLAVOR GENERATING ARTICLE

F. V. Utsch, C. H. Morgan, F. M. Sprinkel, and D. B. Losee
Physical Research/Whidby/Charles

An article is provided in which a flavor generating medium is electrically heated to combustion to evolve inhalable flavors or other components in vapor or aerosol form. The article has a plurality of charges of the flavor generating medium which are heated sequentially to provide individual puffs.

Glenn/F&N/deBlasi
11-19-90 Filed in PTO.

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PM 1476 - SN 625923

FILAMENTARY FLAVORANT-RELEASE ADDITIVE FOR SMOKING COMPOSITIONS CONTAINING A MENTHOL-RELEASE ADDITIVE

James M. Washington
Development Engineering/Burns/Burnley

In one embodiment this invention provides a cigarette product which contains a novel type of flavorant-release monofilament. The encapsulated flavorant is released under normal smoking conditions.

Schardt/Depaoli/Giancola
12-11-90 Filed in PTO.

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20201109343

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1477 - SN 568351

(Cartier) APPARATUS AND METHOD FOR FORMING HINGED TOP CIGARETTE BOX

Jonah Adams, John Tomanovits, and Duane Wilder
Engineering/Keen/Taylor

An apparatus for forming a hinged top cigarette box having a cross-section with one or more arcuate surfaces from a one piece blank is provided.

See also D689A&B

Glenn/F&N/Lee
8-15-90 Filed in PTO; assignment recorded.

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2020109344

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1480 (D612) - SN

METHODS AND APPARATUS FOR FEEDING AND ASSEMBLING CYLINDRICAL ARTICLES FROM BULK AT HIGH SPEEDS

Bill J. Keen, R. B. Reich, and G. R. Scott
Engineering

Methods and apparatus are provided for sorting and transporting cylindrical articles from a jumbled mass into a continuous stream of uniformly spaced articles aligned end-to-end. The methods include the steps of sorting, spacing and incorporating the spaced apart articles into component assemblies. The invention apparatus comprises a bowl feeder, a series of frictional, suction and lugged belt conveyors and a plurality of vacuum transfer and assembly drums. The apparatus includes means for regulating the sorting and transfer of the articles, for synchronizing transfer of the articles between apparatus subsystems, and for incorporating the articles into component assemblies.

Glenn/F&N/Pisano
1- -91 Filed in PTO.

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20020109345

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1483 - SN 571878

(Filter Technology - Project Bold) CONCENTRIC SMOKING FILTER HAVING DISCRETE TOW AND WEB FILTER MEDIA

C. W. Arterbery, W. T. Callaham, G. D. Keritsis, M. F. White
Cigarette Technology/Gauvin/Myracle

A concentric smoking filter in which one of the filter media is a fibrous tow, such as fibrous cellulose acetate tow, and one of the filter media is a web material, such as paper, is provided. The filter improves the taste, particularly, of ultra-light cigarettes.

Schardt/F&N/Ingerman

8-20-90	Draft IDS received.
8-24-90	Filed in PTO; assignment recorded.
11-26-90	IDS filed.
12-20-90	1st action rejecting all claims (response due March 20).
1-25-91	Action to inventors for review.

Corresponding foreign applications filed in Australia, Canada, Finland, Hong Kong, Hungary, Japan, Norway, Poland, South Korea, Saudi Arabia, USSR, Taiwan, Turkey, and the EPO designating all countries except Luxembourg.

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2020109346

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1484 - SN 576776

CIGARETTE PACK WITH PARTLY REMOVABLE INNERFRAME

Donald H. Evers
Engineering/Keen/Taylor

A box-like cigarette pack has an innerframe which initially extends upward into what is normally a cutout in the front of the innerframe. This extension may then continue over the top of the cigarettes in the pack. The innerframe is weakened along the line which normally defines the cutout. When the consumer first opens the pack, he or she can remove the innerframe extension by tearing or separating along this line of weakening. Thereafter, the pack is like a normal pack. Additional information can be printed on the removable portion or portions of the innerframe. If provided, the portion which initially extends over the cigarette tops is a convenient size for use as a coupon or the like.

See also PM 1538 and 1484

Schardt/F&N/Jackson

9-4-90	Filed in PTO; assignment recorded.
9-7-90	Innerframe variation received from Evers.
10-30-90	IDS filed.

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2020109347

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1486 - SN 573,865

SCORED INNERFRAME FOR HINGED LID CIGARETTE PACK

X. M. Pham
Engineering/Keen/Taylor

A hinged lid cigarette pack with rounded edges having an outer sleeve member within which is fitted an innerframe. The innerframe is provided with a front wall, side walls, rear walls and scored transitional panels interposed between the walls. The innerframe is bent about the score lines to conform closely to and fit within the contours of the rounded edges of the cigarette packs. The rear walls of the innerframe wrap around the cigartte bundle contained in the pack and frictionally engage the rear rounded corners of the pack, hinge and lid, thereby stabilizing the closed position of the hinged lid.

Glenn/F&N/Isackson/Panichi
8-28-90 Filed in PTO without formal papers.

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20020109348

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1487 - SN 573884

APPARATUS AND METHOD FOR MAINTAINING CLOSED HINGED LID BOXES

X. M. Pham
Engineering/Keen/Taylor

A hinged lid box having an innerframe and rounded corners and means for maintaining the box substantially closed. The means includes a second front panel of material affixed in superposition to the interior front panel of the box lid to engage the innerframe of the box, providing increased structurel support and frictional forces that retain the box in a closed position. The second panel of material has approximately the same width at the lid panel and a height that is greater than 50 percent and less than 100 percent of the height of the box lid. The panel also may have tabs extending from the panel into the rounded corners of the box so that the tabs are interposed between the innerframe corners and the lid corners when the lid is closed.

Glenn/F&N/Panichi
8-28-90 Filed in PTO; assignment recorded.
11-30-90 Action - restriction requirement.

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20020109349

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1488 - SN 573,883

INTERLOCKING CLOSURE FOR HINGED LID BOXES

X. M. Pham
Engineering/Keen/Taylor

A hinged lid box having an innerframe and interlocking means for maintaining the box substantially closed. The interlocking means includes a panel of material including a tab that is secured to the inside of the front panel of the lid so that the tab is opposed to but not secured to the lid surface whereby the tab is disposed to pass inside the innerframe during closure. The innerframe is thus frictionally engaged by the tab and the opposing surface of the front panel of the lid to retain the lid closed. The tab may be formed by a slit in the panel of material and provided with a score line to facilitate bending the tab at the desired location to engage the innerframe. The tab also may be formed by cutting a notch in the panel, thereby providing a space between the tab and the panel from which the tab is cut. The notch may be provided with a configuration that facilitates inserting the tab behind the innerframe. Means for raising the tab a distance above the surface of the panel of material also may be provided. More than one tab may be used, preferably two tabs spaced apart and proximate to the front corners of the lid. The interlocking means is suitable for boxes having rounded corners.

Glenn/F&N/Panichi
8-28-90 Filed in PTO.
11-30-90 Action - restriction requirement.
12-20-90 Response filed electing claims 1-43 and 55-58.

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20020109350

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1490 DES - SN 568317

(Design) BOX HAVING VERGE LINES AND PINSTRIPING AT REGIONS ABOUT ROUNDED SIDE PORTIONS

R. L. Graham, X. M. Pham, Donald H. Evers
Engineering/Keen/Taylor

Design for a box having verge lines and pinstriping at regions about rounded side portions.

See also CIP PM 1524DES

Glenn/F&N/Isackson
8-15-90 Filed in PTO.

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PM 1498 - SN 605402

(Paper Technology) PROCESS FOR MAKING WRAPPERS FOR SMOKING ARTICLES WHICH MODIFY THE BURN RATE OF THE SMOKING ARTICLE

J. L. Myracle
Product Development

A process for making smoking article wrappers so as to modify the mass burn rate of the smoking article.

See also PM1368 and D741

Schardt/F&N/Hubbard
10-30-90 Filed in PTO; assignment recorded.
11-15-90 Application to Long at Shook Hardy for review.

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2020109351

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000

PM 1499 - SN 594325

MULTI-PACK FLIP-TOP CIGARETTE CARTON

Pam Moore, Nick Pitt, and Howard Vogt
PM International

A paperboard blank is provided for a multi-pack, flip-top cigarette carton. The carton blank has front, back and side panels, top and bottom flaps, and dust flaps. These sections of the carton blank are separated by score lines in such a manner that the blank can be readily formed by conventional means to form a multi-pack, flip-top cigarette carton.

Glenn/F&N/Nix
10-9-90 Filed in PTO.

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PM 1524DES (CIP OF PM 1490) - SN 631790

(Cartier) DESIGN - BOX HAVING VERGE LINES AND PINSTRIPING AT REGIONS ABOUT ROUNDED SIDE PORTIONS

R. L. Graham, Z. M. Pham, D. H. Evers, and F. M. Della Crosse
Engineering/Keen/Taylor

Glenn/F&N/Solomon
12-21-90 Filed in PTO.

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20020109352

Source: https://www.industrydocuments.ucsf.edu/docs/pngj0000